

Work Order ID 64158

PRELIMINARY ISSUE



Page 1

Thursday, November 25, 2010 4:01:27 PM

Item ID: D4298-011

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Hinge

Start Date: 11/25/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 12/3/2010 Req'd Qty: 1.00



Customer:



Reference:

Approvals: Process Plan:

Date: 10-11-20

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4298	PA1

100

0.00



Bandsaw

Memo

0.00

ank 10/12/08

Jeaspa Bandsaw

105

0.00



HAAS 1

Memo

0.00

ank 10/12/08

HAAS CNC vertical machine #1

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

ank 10/12/08

Quality Control

Handwritten signature and date 11/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64158

Thursday, November 25, 2010 4:01:27 PM

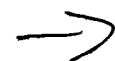


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Item ID:	D4298-011	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Hinge					
Start Date:	11/25/2010	Start Qty:	1.00		Cust Item ID:	
Required Date:	12/3/2010	Req'd Qty:	1.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 QC Quality Control	QC8- Inspect parts - second check Memo	0.00 - inspect to EAM - on day only 81012108 (R)							
130 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 =) M 10/12/09				1	Q		
140 Powdercoat Powder Coating	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3 M112588 Memo POWDER COAT: Start Time: 9:05 Oven Temperature: 320° Finish Time: 9:35	0.00 0.00				1		BR 10-13-9.	



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



NOTE: Date & initial all entries




Work Order ID 64158

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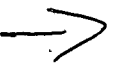
Item ID:	D4298-011	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Hinge					
Start Date:	11/25/2010	Start Qty: 1.00		Cust Item ID:		
Required Date:	12/3/2010	Req'd Qty: 1.00		Customer:		
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00	<i>W</i>	<i>10/12/09</i>		<i>1</i>	<i>0</i>		
160  Small Fab Small Fab	Memo 1- Assemble as per dwg	0.00 0.00							
170  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							

EP 10/12/15 ①

E 10.12.15 ①



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Work Order ID 64158



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Item ID: D4298-011 Accept  Setup Start 
Revision ID: PRELIM Stop 
Item Name: Hinge
Start Date: 11/25/2010 Start Qty: 1.00  Cust Item ID:
Required Date: 12/3/2010 Req'd Qty: 1.00  Customer:


Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  Packaging	Identify as per dwg & Stock Location: _____ Memo	0.00 0.00				_____	_____	_____	_____
200  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00				_____	_____	_____	_____

POSITIVE RECALL

EFFECTIVE 10-11-29 AUTH ll
RELEASED _____ DATE _____

MF
10-12-15

→

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes (No) DQA: / Date: 10.12.17
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10.12.17	105	Ø.098" not corrected on ERA Rev. D drawing. RC: 3rd party design	<u>/</u> 10/12/17	hole is 0.098 per Rev Rivet installed upon ASS'y? ERA Rev. A drawing mark up dim was not recorded on FAI Advise ERA of the deviation	<u>/</u> 10.12.17		<u>/</u> 10/12/17	<u>/</u> 10.12.17
					see attached e-mail			

NOTE: Date & initial all entries

Picklist Print

Page 1

Thursday, November 25, 2010 4:01:31 PM

Work Order ID: 64158

Parent Item: D4298-011

Parent Item Name: Hinge



Start Date: 11/25/2010

Required Date: 12/3/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP revA 10.11.25 new issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B0.750X02.00
0

Purchased

No

100

f

33.7965

1

1



6061-T6 Bar .750 x 2.00

Location

Loc Qty

Loc Code

MAT03

33.7965

100742

9.5

111448

24.2965

D4298-024

Manufactured

No

160

Each

0.0000

0.391

0.411579



Serrated Adjustment Washer

MS20426AD3-6

Purchased

No

160

Each

1,314.000

1

1



Rivet

Location

Loc Qty

Loc Code

ST316

1314

105055

1314

1

80 10/12/10

0.383 ml 10/12/08

B 64144

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 64158
Description: HINGE		Part Number: D 4298-011
Inspection Dwg: D4298 Rev: A ERA -011		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.04	$\pm .036$	.086	—		Ueln ML-7	
.13	$\pm .030$	.130	—		"	"
Ø.319	$\begin{matrix} +.000 \\ -.001 \end{matrix}$	Ø.318	—		"	"
.50	$\pm .030$	.499	—		"	"
.060	$\pm .036$	.061	—		"	"
.035	$\pm .010$	.033	—		"	"
.320	$\pm .030$	.320	—		"	"
1.65	$\pm .030$	1.654	—		"	"
.25	$\pm .030$	.250	—		"	"
.77	$\pm .030$	.765	—		"	"
.75	$\pm .030$	.750	—		"	"
1.00	$\pm .030$	1.000	—		"	"
Ø.128	$\begin{matrix} +.005 \\ -.001 \end{matrix}$	Ø.128	—		"	"
4.50	$\pm .030$	4.503	—		"	"
.41	$\pm .030$	.405	—		"	"
.20	$\pm .030$	.201	—		"	"
Ø.250	$\begin{matrix} +.005 \\ -.001 \end{matrix}$	Ø.251	—		"	"
Ø.098	$\begin{matrix} +0.005 \\ -0.001 \end{matrix}$	Ø.098	✓			per Rivet in sta 1/2

Measured by: <i>anf</i>	Audited by: <i>S</i>	Preliminary Approval:
Date: 10/12/08	Date: 10/12/08	Date:
Inspector to ERA -011 Jny		

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

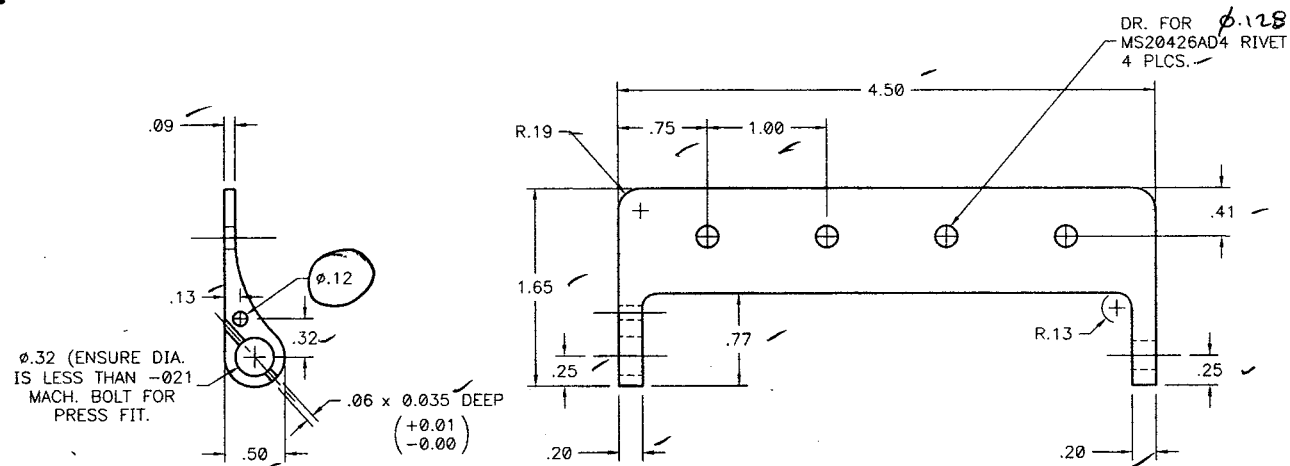
10.04.15

DART P/N	ERA P/N	Description
D4298-001	13939-1-290-001	CHART HOLDER ASSY
D4298-002	13939-1-290-002	PLATE SUB-ASSY
D4298-003	13939-1-290-003	PLATE SUB-ASSY
D4298-004	13939-1-290-004	FIXING BRACKET SUB-ASSY
D4298-005	13939-1-290-005	HINGE SUB-ASSY
D4298-006	13939-1-290-006	MACHINED INNER SUB-ASSY
D4298-007	13939-1-290-007	MACHINED OUTER SUB-ASSY
D4298-008	13939-1-290-008	PLATE
D4298-009	13939-1-290-009	PLATE
D4298-010	13939-1-290-010	FIXING BRACKET
D4298-011	13939-1-290-011	HINGE
D4298-012	13939-1-290-012	HINGE
D4298-013	13939-1-290-013	HINGE
D4298-014	13939-1-290-014	HINGE
D4298-015	13939-1-290-015	CLIP ANGLE
D4298-016	13939-1-290-016	CLIP STOP
D4298-017	13939-1-290-017	CLIP STOP MOUNT
D4298-018	13939-1-290-018	MACHINED INNER
D4298-019	13939-1-290-019	MACHINED OUTER
D4298-020	13939-1-290-020	KNOB
D4298-021	13939-1-290-021	MACHINE BOLT
D4298-022	13939-1-290-022	PIN TOPPER
D4298-023	13939-1-290-023	PIN
D4298-024	13939-1-290-024	SERRATED ADJUSTMENT WASHER

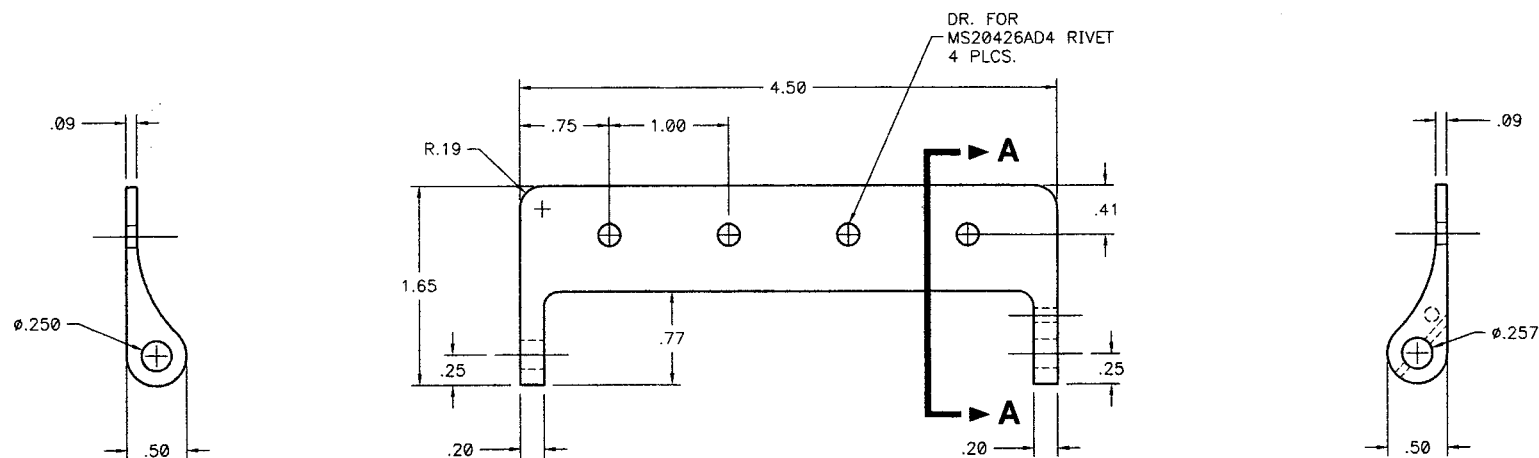
RELEASED
2010-12-15
W

0010 6 1115 8

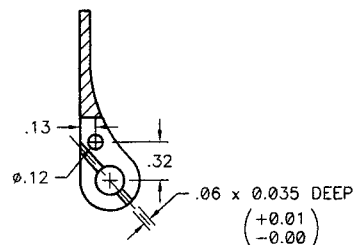
A	NEW ISSUE	SC	10.12.15
REV.	DESCRIPTION		BY DATE
DESIGN	SC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED	<i>W</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>W</i>	D4298	SHEET 1 OF 1
APPROVED	<i>W</i>	TITLE	SCALE
DE APPR.	<i>W</i>	CHART HOLDER (AW 139)	NTS
DATE	10.12.15	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



-011 HINGE



-012 HINGE



SECTION A-A

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Era Helicopters LLC

TITLE SINGLE PILOT VFR
 CHART HOLDER, AW139

SIZE C DWG. NO. 13939-1-290
 SHT 7 OF 10

REV. D

W/064158

Eric Charbonneau

From: Domingue, Elvin [edomingue@erahelicopters.com]
Sent: November 24, 2010 1:48 PM
To: Nelson, David; 'echarbonneau@dartaero.com'
Subject: Re: DXF files (AW139 Chart Holder)

Yes that would be perfect!

Elvin Domingue
Sent from my BlackBerry Wireless Device

From: Nelson, David
To: 'Eric Charbonneau' <echarbonneau@dartaero.com>
Cc: Domingue, Elvin
Sent: Wed Nov 24 12:37:04 2010
Subject: RE: DXF files (AW139 Chart Holder)
Eric,

That sounds okay to me, but I'll fwd to Elvin Domingue on this.

Elvin, does this finish sound okay for the AW139 Chart Holder?

Thanks,
David

From: Eric Charbonneau [<mailto:echarbonneau@dartaero.com>]
Sent: Wednesday, November 24, 2010 12:10 PM
To: Nelson, David
Subject: RE: DXF files

Thanks David, at the same time would you know what kind of finish is required on the assembly, most of our interior parts we alodine and then powder coat black sandtex, this black is satin and prevent any glare. If this is what you would like please let me know, or fwd this to whoever can help me out with this.

Thank,
Eric

From: Nelson, David [<mailto:dnelson@erahelicopters.com>]
Sent: November 24, 2010 11:53 AM
To: 'Eric Charbonneau'
Subject: RE: DXF files

Here you go.

Thanks,
David

From: Eric Charbonneau [<mailto:echarbonneau@dartaero.com>]
Sent: Wednesday, November 24, 2010 10:11 AM

Eric Charbonneau

From: Nelson, David [dnelson@erahelicopters.com]
Sent: December 15, 2010 8:55 AM
To: 'Eric Charbonneau'
Subject: RE: -006/-007

Hi Eric. Yes, please make the needed adjustments to the rivet hole locations. Also, I agree that AD3's would be better than AD4's.

Thanks,
David

From: Eric Charbonneau [mailto:echarbonneau@dartaero.com]
Sent: Wednesday, December 15, 2010 7:13 AM
To: Nelson, David
Subject: FW: -006/-007

Sorry here's the picture

From: Eric Charbonneau [mailto:echarbonneau@dartaero.com]
Sent: December 15, 2010 8:11 AM
To: 'Nelson, David'
Subject: -006/-007

Good morning David, we found a problem with the location of the rivet hole for assembling -024 with -006 and -007, I attached a picture of -006 same problem with -007, also it seems like it would be better to use AD3 rivets instead of AD4's it would leave a bit more meat on the -024. Let me know if we can just transfer the hole location from -024 into -006 and -007 for this unit only and if you would like to go with the AD3 rivets.

ERIC CHARBONNEAU
Production Engineering Coordinator

DART
aerospace

T(613) 632-5200
F(613) 632-1053
echarbonneau@dartaero.com



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